

We claim:

1. A computerized method for image editing comprising:
 - 5 attaching a filter to a textual vector instruction, the instruction describing a geometric shape;
 - replacing the non-transparent bits defined by the textual vector instruction with the corresponding bits in a raster image; and
 - 20 applying an effect to the non-transparent bits.
- 10 2. The computerized method for image editing as in claim 1, wherein:
 - the filter further comprises a transformation instruction.
- 15 3. The computerized method for image editing as in claim 2, wherein:
 - the transformation operation further comprises an instruction implemented as an extension to a browser.
- 20 4. The computerized method for image editing as in claim 1, wherein:
 - the textual vector instruction further comprises a vector markup language instruction.
- 25 5. The computerized method for image editing as in claim 1, further comprising before the attaching:
 - receiving the filter from a display-language-renderer; and
 - receiving the raster image from a display-language-renderer.

6. The computerized method for image editing as in claim 5, wherein receiving the filter from a display-language-renderer is performed after receiving the raster image from a display-language-renderer.

5 7. The computerized method for image editing as in claim 5, wherein the display-language-renderer is a browser.

8. The computerized method as in claim 1, wherein the filter further comprises a filter in a chain of a plurality of filters and the method is performed for each of the filters in the chain
10 of plurality of filters.

2612 9. A computerized method for image editing comprising:

pt8 defining all of a plurality of raster transformation operations in vector image
15 drawing terms.

2612 10. A computerized method for image editing comprising:

pt8 receiving a vector shape definition, the definition being associated with a
raster-based transformation;
20 invoking a call to a transformation operation that performs a raster-based
transformation on the vector shape definition; and
composing a shape from the vector shape definition.

11. The computerized method as in claim 10, wherein the transformation operation is
25 implemented as an extension to a display language renderer;

12. The computerized method as in claim 11, wherein the definition being associated with
a raster-based transformation further comprises:

the definition being attached to a raster-based transformation.

13. A computerized method for image editing comprising:
creating a vector image from a specification;
5 determining that a filter is associated with the image;
copying the image to an input buffer;
copying a background image to an output buffer;
retrieving a pixel from the input buffer from the pixel pointer;
applying the filter to corresponding pixels in the output buffer wherein the pixel is not
10 transparent;
advancing the pixel pointer; and
repeating method starting with retrieving wherein more pixels in the input buffer.

15 14. The computerized method of claim 13, wherein determining that a filter is associated
with the image further comprises determining that a filter is attached to the image.

15. A computerized method for image editing wherein the specification further comprises
a vector markup language specification.
20 16. A computerized method for image editing wherein the specification further comprises
scalable vector graphics specification.
25 17. A computerized method for image editing wherein the specification further comprises
a vector markup language specification and a scalable vector graphics specification.

18. The computerized method for image editing as in claim 16, wherein the method is
performed by the compositor engine of a standard display-language-renderer.

19. The computerized method for image editing as in claim 18, wherein the standard display-language-renderer further comprises a browser.

5 20. The computerized method for image editing as in claim 17, further comprising:
determining that an internal effect is specified; and
applying the internal effect to the input buffer.

10 21. The computerized method for image editing as in claim 17, further comprising:
composing bits to a screen buffer wherein the determining that a filter is
associated with the shape fails.

15 22. The computerized method for image editing as in claim 17, wherein copying the shape
to an input buffer is performed after copying a background image to an output
buffer.

23. A computer-readable medium having computer-executable instructions to a cause a
computer to perform a method comprising:
generating a vector shape from a vector description in a hyper text markup language
20 page;
copying the vector shape to an input buffer;
copying a background to an output buffer;
copying the portion of the output buffer corresponding with the input buffer to the
input buffer;
25 applying vector manipulations to the input buffer;
copying the input buffer to the output buffer; and
displaying the output buffer.

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24. The computer-readable medium as in claim 23, wherein copying the portion of the output buffer, applying vector manipulations and copying the input buffer to the output buffer are performed by a plug-in extension to a browser.

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25. A computer-readable medium having computer-executable instructions to a cause a computer to perform a method comprising:

receiving a vector shape definition, the definition being associated with a raster-based transformation; and
invoking a call to a transformation operation that performs a raster-based transformation on the vector shape definition.

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26. A computer-readable medium having stored thereon computer readable instructions accessible as an extension to a browser that describes a raster-based manipulation of an image described in a text vector-based language.

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27. A computer-readable medium having stored thereon computer readable instructions accessible as a service to provide special effects to a browser that describes a vector shape on top of a raster image.

20 28. The computer-readable medium as in claim 27, wherein the service is a plug-in extension.

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25 29. A computer-readable medium having stored thereon computer readable instructions that invokes a service that provides special effects to a browser by performing vector transformations of raster-images.

30. The computer-readable medium as in claim 29, wherein the service is a plug-in extension.

31. An apparatus comprising:
a browser that receives a hyper text markup language page, the hyper text markup language page identifying a custom extension method to the browser, a
5 background image, a vector shape, and a vector manipulation;
a component operably coupled to the browser and the custom extension method;
an input buffer operably coupled to the browser;
an output buffer operably coupled to the browser; and
wherein the browser generates the vector shape from a vector description in the hyper
10 text markup language page, copies the vector shape to the input buffer, copies
the background to the output buffer;
wherein the custom method copies output buffer bits corresponding with input buffer
bits to the input buffer, applies the vector manipulations to the input
buffer, and copies the input buffer to the output buffer; and
15 wherein the browser displays the output buffer.

32. The apparatus as in claim 31, wherein the vector description further comprises a
description compliant with vector markup language.

20 33. A computer-readable medium having stored thereon computer readable instructions to
a cause a computer to perform a method comprising:
attaching a transformation component;
identifying a raster image; and
invoking the transformation component, providing a plurality of manipulations to the
25 raster image described in vector-based terms.

34. The computer-readable medium as in claim 33, wherein the computer readable
instructions are compliant to hypertext markup language.